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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,643	09/22/2000	Andrew David Birrell	18973-50 (P00-3011)	2074

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05/02/2005

HEWLETT-PACKARD COMPANY
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EXAMINER

JAROENCHONWANIT, BUNJOB

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/668,643

Applicant(s)

BIRRELL ET AL.

Examiner

Bunjoo Jaroenchonwanit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 15-28, 30 and 40-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 15-28, 30 and 40-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is in response to the submission filed on 10/28/2004. The amendment has been review; claims 1-4, 15-28, 30 and 48-52 are pending for examination.

Response to Arguments

2. Applicant points out the erroneous of the claim numbering is acknowledge, renumbered claims 11-47 have been renumbered back to claims 12-48 as originally presented. Applicant response to IDS objection is acknowledged. The previous rejection under 35 USC 112 is withdrawn. Applicant's argument with respect to claims' rejections under 35 USC 102 and 103 have been fully considered but are moot in view of new ground(s) of rejection. The new ground(s) of objection and rejection cited are as stated below.

Response to Amendments

3. The text of those sections of Title 35, U.S. Code 112 and 103 not included in this action can be found in a prior Office action.

4. Claims 18, 46, 47 and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claims 46 and 47, the term "may" and phrase "may be" renders the claims indefinite because they are unclear whether the limitation(s) following the term or the phrase are part of the claimed invention. See MPEP § 2173.05(d).

6. Regarding claims 18 and 50, the phrase "that is not controlled" is a negative limitation that rendered the claim indefinite because it was an attempt to claim the

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invention by excluding what the inventors did not invent rather than distinctly and particularly pointing out what they did invent. *In re Schechter*, 205 F.2d 185, 98 USPQ 144 (CCPA 1953).

7. Claims 1-4 and 15-18, 21,23, 28, 29 and 31-52 are rejected under 35 USC 103(a) as being unpatentable over Bell et al (US 2002/0049778) and Nemovicher (US 2002/0007453 A1)

8. Regarding claims 1, 15, 44, 45, 48 49 and 51-52, Bell discloses a method for backing up data on a plurality of computers connected via a network, comprising: forming one or more partnerships among the plurality of computers such that each computer in a partnership commits under agreements to store backup data received from one or more of its backup partners; backing up data in accordance with each agreements; and periodically verifying that previously backed up data is being retained by the computers committed to act as backup partners in accordance with each agreement (backup service level among a plurality of computers, Fig. 6, 9, 11; Paragraphs 13-14, 18, 20-21, 74-87and 89-91). Bell does not teaches, a first computer in each partnership assumes the task of storing backup data received from one or more other computers in the partnership and one or more of the other computers in the partnership assume the task of storing backup data received from the first computer or in other words, Bell is silent on reciprocal backup. However, the reciprocal-backup's technique is not novelty, in the same field of endeavor, Nemovicher teaches the same technique has been utilized in backing up computer data prior to the invention was made, Nemovicher utilizes the reciprocal backup among computer nodes in order balancing load distribution (Nemovicher – Fig.5, paragraph.69-70). Thus, it would have been obvious to one of

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ordinary skilled in the art at the time of the invention was made to incorporate the technique of reciprocal backup with service level agreement as taught in Bell to have a system that is capable of balancing load, while maintaining redundancy, which is capable of restoring data services to its clients, expeditiously.

9. Regarding claim 2, Bell-Nemovicher discloses, selecting potential backup partners from among the plurality computers based on predetermined criteria (Bell – selecting backup data based on SLA).

10. Regarding claim 3, Bell-Nemovicher discloses, negotiating the agreements between the plurality of computers based on predetermined requirements, including backup requirements (Bell - SLA specified the requirements, e.g. times, sizes, partitions, for backing up data, Fig. 6).

11. Regarding claim 4, Bell-Nemovicher discloses, wherein the plurality of computers administer a distributed cooperative backing up of data in the absence of central control (Bell – System 600 in Fig. 6 shown the computers of enterprises from backup partners with storage node computer, and each enterprises manage its own SLA without relying upon central control, Fig. 6; Nemovicher – Fig. 5 shown the partner is formed among computer nodes without central control, paragraphs 69-70).

12. Regarding claims 16-17 and 47, claims' language recite conventional features, which are inherent in conventional data backup concept, e.g., verifying whether the backup data has been changed or generating hashing value, i.e., checksum or CRC of backed up data for redundancy and integrity verifications purposes. Since Bell-Nemovicher discloses periodically backup, which is necessary to discern versions of the

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data that being backed up of updated, thus the features of verifying data version or hashing data is required thereby they are inherent.

13. Regarding claims 18 and 50, Bell-Nemovicher discloses, wherein the block is selected using a protocol to produce a number that corresponds to the selected block and that is not controlled by any one backup partner individually (Bell – SLA is not control by any one individually, the SLA must be agreed upon by both parties).

14. Regarding claims 21 and 23, Bell-Nemovicher discloses, the invention substantially as claimed including selecting another computer to be the new backup partner includes determining if there are sufficient backup partners for backing up the data, and searching for the other computer based on predetermined criteria including one or both of geographic separation and system diversity (Bell- SLA teach negation for partner selection, while Nemovicher teaches reciprocal backup data across network, i.e., geographic separation and diversity).

15. Regarding claim 28, Bell-Nemovicher inherently discloses each of the backup partners has a recent copy of a list of its backup partners' other backup partners (Bell – SLA).

16. Regarding claim 46, Bell-Nemovicher discloses the invention substantially, as claimed, but it is silent to backup partners may leave the system and return to the system at any time. Since the SLA is negotiable between partners, thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made leaving or joining backup partner would have been obvious variation of application design choice, which depends upon situation or condition of each of the backup nodes, individually.

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17. Claims 20 and 22 are rejected under 35 USC 103 (a) as being unpatentable over Bell-Nemovicher, as applied to claim 1, and what was well known in the art.

18. Regarding claims 20 and 22, Bell-Nemovicher discloses the invention substantially, as claimed, as described, including agreement negotiation among network nodes, which is applicable for selecting or negotiating for backup partner, regardless of new or old partners. Bell-Nemovicher does not explicitly disclose in details that the system negotiating for a new partner if the existing partner is unable to accommodate backing up data. However, negotiation for new partner, i.e., new node, which is inherently in a new location, if the coexisting one fails to compliance with the agreement, would have been obvious to one ordinary skill in the art to do so, in order to maintain system's reliability and efficiency.

19. Claims 19, 24-27 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

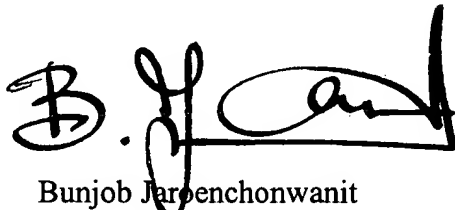
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bunjob Jaroenchonwanit whose telephone number is (571) 272-3913. The examiner can normally be reached on 8:00-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bunjob Jaroenchonwanit
Primary Examiner
Art Unit 2143

/bj
4/27/05